

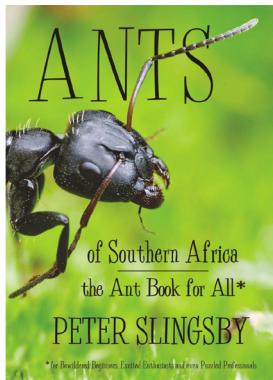


The world of southern African ants made accessible

BOOK TITLE:

Ants of southern Africa: The Ant book for all

BOOK COVER:



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Ants fulfil central roles in southern African ecosystems: changing soil structure and chemistry, dispersing seeds and hunting arthropods. Ants occur in all habitats, even inside buildings. Most people encounter them frequently. Hearing that I work with ants, people often tell me of the ants in their kitchen and garden. Indeed, ants are not only known to be occasionally irritating, but have also long piqued people's curiosity as numerous fables and children's movies attest. The ants' fascinating range of behaviours makes them rewarding objects of study for professionals and amateurs alike.

Yet many people remain unaware of the astonishing diversity of this group. One reason is the small size of these animals; another is the large number of morphologically similar species. Whereas field guides to plants or birds enable laypersons to identify many species in the outdoors, identification keys for small invertebrates, if available, typically require equipment like microscopes only available to few, mostly professional, researchers. This limitation applies to printed and online identification keys for African ants. Existing insect field guides, which are also suitable for non-experts, often cover a broad spectrum of taxonomic groups. They are thus limited to a few common or conspicuous ant species. Given the frequent use of ants in ecological research or conservation projects, a modern species-level field guide, dedicated to southern African ants, has been lacking.

Peter Slingsby subtitled his field guide 'The Ant Book for All', and his aim is indeed met. The book includes much of interest even to those with years of experience working with South African ants, but is easy to use for beginners. The short introductory chapters provide information on ant biology and ecology, and the history of the study of ants in southern Africa. At the end of the book, information on collecting ants, ant diversity in the region, a glossary, and indices for both scientific and common names are provided. Maps show habitat types and collection sites.

A section on ant anatomy and a 'How to use this book' section commence the main part of the book. The keys are simple enough for the layperson to identify many species to genus level; especially if they are observing a whole nest with brood. The keys fill only two pages. The focus is on behaviour and appearance in the field, which are visible to the naked eye or using a hand lens. A list with short descriptions of common genera and information on where to encounter them is provided. Genera are thereafter presented in alphabetical order within subfamilies. Larger genera are preceded by an introduction, sometimes with sketches showing identifying characteristics. However, the focus is on field photographs of more than 225 common species and descriptions of their distributions, behaviour and anatomy. The guide is unusual in also providing common names and drawings showing actual size. There are shorter notes on a further 400 species. The guide thus covers the majority of the described ant species so far recorded for southern Africa. Keys to distinguish species within genera are not provided. Instead, after identifying possible genera using the key, the user will need to search for matches among the species descriptions and photos. I tested the guide using field photographs of South African ants with the help of two undergraduate biology students. After a short introduction using the illustrations and legends in the guide, they correctly identified all photos to genus and most to species level.

The photographs by Philip Herbst and many other contributors to the iSpot website (www.ipsotnature.org) are of the highest quality. The numerous field photographs show live ants in their natural habitats. Where such were not available, the author provides excellent illustrations. Symbols show under which light conditions species are active and how common they are. Where specialist terms are required, these are explained with illustrations or in the glossary. With this much information provided, the pages might feel crowded. The legends explaining some frequently used symbols are not necessary on each page with species descriptions and species photographs, although they may help occasional users.

In this wealth of information, it is perhaps unavoidable that some errors slipped in. They are few. In the legend to the otherwise excellent maps, the Nama Karoo and Succulent Karoo are mixed up. Furthermore, in a table with illustrations distinguishing six genera based on six characters, *Solenopsis* is erroneously shown to have spines on the propodeum.

The enthusiasm the author feels for his subject penetrates the whole book. His highly personal style is unusual for an entomological book but highly engaging. The humorous asides and anecdotes and the many details on the ants' lives make the book enjoyable to browse, even with no ants at hand. Slingsby's book is a helpful tool for conservation managers or researchers interested in using ants as indicators for biodiversity or environmental change. It is an excellent reference for information on ant species. The book is unparalleled in usefulness in the field or for people without access to specialist equipment. However, for professional use, identifications of ants should be confirmed using taxonomic literature – keeping in mind that many ant species in southern Africa are yet to be described. The book will be very valuable for citizen scientists, professional biologists or conservationists working with ants in the field, and all those who observe and photograph ants and want to know more about them.

